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EXAMINER	
SMARTH, GERALD A	
ART UNIT	PAPER NUMBER
2146	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/620,772	RICHARD ET AL.	
	Examiner	Art Unit	
	Gerald Smarth	2146	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Remark date 9/14/07

2. Claims 1-27 are presented for examination. Claims 1, 8, 17, and 18 are independent claims. The remaining claims are dependent claims. Claims 1, 3-9, 11-12, 14-16, 17-18 have been amended.

3. The Rejections are respectfully maintained and reproduced infra for application's convenience.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Howard (6098079).

Regarding claim 1, Howard teaches a method of distributing files between computing devices of at least one group of computing devices including the steps of

automatically performing a file reconciliation routine in response to the networking of at least two of said computing devices in the same network in response to the networking of at least two of said computing devices in the same network being performed, ***(Howard discloses the present invention is related generally to the field of distributed file systems for computers, and more specifically to the reconciliation of different versions of files that may exist at different storage locations within a distributed computer system; Column 1 line 14-18)*** and then periodically, of said at least two of said computing devices while said at least two of said computing devices are networked to each other in the same network. ***(Howard discloses thus periodically the user files and directories at the two sites are reconciled with each other so that both sites have the latest copies of the files and directories; Column 4 line 43-46)***

Regarding claim 2, Howard taught a method according to claim 1, as described above. Further Howard teaches the step of controlling at least one of said computing devices to transmit file reconciliation data periodically irrespective of its or their connectivity to other computing devices. ***(Howard discloses thus periodically the user files and directories at the two sites are reconciled with each other so that both sites have the latest copies of the files and directories; Column 4 line 43-46)***

Regarding claim 3, Howard taught a method according to claim 1, as described above. Howard further teaches wherein said computing devices include at least one

shared files directory, and further including automatically storing shared files in the at least one shared files directory. ***(Howard discloses a file reconciliation technique is described that uses a combination of automatic mechanisms and user control the reconciliation technique uses a set of journal files in which the history of file creation, modification, and deletion throughout the system is recorded, each journal file maintaining the portion of the history involving a particular site, or storage location. As used therein, the term "site" refers to a working directory and its sub-directories on a particular storage medium, such as a hard disk or floppy disk; Column 2 line 47-55)***

Regarding claim 4, Howard taught a method according to claim 3, as described above. Further Howard teaches wherin the at least one shared files directory is directly accessible by software application stored in the computing devices and further including directly accessing the at least one shared files directory of the software applications stored in the computing devices. ***(Howard discloses the process uses site directories and version entries in the journal files to determine whether there is a single current version of each file or directory, and if so copies that version to the other sites involved in the reconciliation; column 2 line 59-63)***

Regarding claim 5, Howard taught a method according to claim 1, as described above. Further Howard teaches including the step of distributing all shared files amongst all computers networked together. ***(Howard discloses in systems using***

these techniques, file updates are broadcast to all storage locations immediately, and in some cases the use of a file being updated is prevented until all copies have been updated; Column 2 line 1-5)

Regarding claim 6, Howard taught a method according to claim 1, as described above. Howard further teaches wherin all distributed files can be read from and written to in any of said computing devices and further including reading from and writing all distributed files in any of said computing devices. ***(Howard discloses for example, the reconciliation process could be run as an independent process on each computer, and a signaling and file-exchange protocol used between the independent processes to carry out the reading and writing of directory, data and journal files; Column 13 line 5-9)***

Regarding claim 7, Howard taught a method according to claim 1, as described above. Further Howard teaches including the steps of issuing file data to all computers that are connected to each other within the group without specifying the computers in the group to which the issued file data are issued. ***(Howard discloses in systems using these techniques, file updates are broadcast to all storage locations immediately, and in some cases the use of a file being updated is prevented until all copies have been updated; Column 2 line 1-5)***

Regarding claim 8, Howard teaches a method of distributing files between computing devices of at least one group of computing devices that are connected to each other in a network, the method including the steps of issuing file data to computers within the group without specifying the computers in the group to which the file issue data are issued and receiving file data from unspecified all computers within the group without specifying the computers in the group that are receiving the received file data. ***(Howard discloses in systems using these techniques, file updates are broadcast to all storage locations immediately, and in some cases the use of a file being updated is prevented until all copies have been updated; Column 2 line 1-5)***

Regarding claim 9, Howard taught a method according to claim 8, as described above. Further Howard teaches including the step of accepting a computer as a computer of said at least one group on the basis of group identification data specific to the group or specific to the device. ***(Howard discloses the reconciliation technique uses a set of journal files in which the history of file creation, modification, and deletion throughout the system is recorded, each journal file maintaining the portion of the history involving a particular site, or storage location; Column 2 line 46-49)***

Regarding claim 10, Howard taught a method according to claim 8, as described above. Further Howard teaches including the step of transmitting a journal of file history for each shared file from one computer into the network. ***(Howard discloses the***

reconciliation technique uses a set of journal files in which the history of file creation, modification, and deletion throughout the system is recorded, each journal file maintaining the portion of the history involving a particular site, or storage location; column 2 line 47-52)

Regarding claim 11, Howard taught a method according to claim 10, as described above. Howard further teaches including the step of [a] one of the computing devices requesting only file versions not stored therein. ***(Howard discloses during reconciliation, sequences of version entries associated with each file in each journal are updated and compared to determine whether (1) a conflict exists for any of the files involved in the reconciliation, and (2) if not, which version of the file is the current version; Abstract)***

Regarding claim 12, Howard taught a method according to claim 10, as described above. Further Howard teaches wherein a file journal includes a code indicative of the contents of each file version in the journal; and further including transmitting the code without transmitting the entire journal. ***(Howard discloses the hash code or digest is computed from the contents of the file according to a known message digest program such that to a very high probability the code uniquely identifies the contents of the file from which it is generated; Column 3 line 41-44)***

Regarding claim 13, Howard taught a method according to claim 8, as described above. Howard further teaches including the step of dividing files into a plurality of portions for data transfer. ***(Howard discloses it should be noted here that the assignment of mask bits to sites is meaningful only within a particular journal. When journals are merged as described above, the mask bits in both the Site and the Version entries are re-mapped appropriately to maintain the associations between versions and sites; Column 6 line 39-44)***

Regarding claim 14, Howard taught a method according to claim 13, as described above. Howard further teaches wherein each file portion includes a contents code, the method including the step of transmitting only those file portions which have been modified. ***(Howard discloses it should be noted here that the assignment of mask bits to sites is meaningful only within a particular journal. When journals are merged as described above, the mask bits in both the Site and the Version entries are re-mapped appropriately to maintain the associations between versions and sites; Column 6 line 39-44)***

Regarding claim 15, Howard taught a method according to claim 13, as described above. Further Howard teaches including the step of providing in each computing device an accessible list of file portions stored therein and the step of determining whether a required file portion is stored therein from the list of accessible file portions. ***(Howard discloses the master list also contains the mask bits to be***

used in the new journals, and a date and time of the last known reconciliation for each site; Column 6 line 26-29)

Regarding claim 16, Howard taught a method according to claim 8, as described above. Further Howard teaches including the step of storing file versions in a format in which they can be read from and written to. ***(Howard discloses for example, the reconciliation process could be run as an independent process on each computer, and a signaling and file-exchange protocol used between the independent processes to carry out the reading and writing of directory, data and journal files. Column 13 line 5-9)***

Regarding claim 17, Howard teaches a distributed file system for distributing files between computing devices, the system of at least one group of computing devices including a file reconciliation unit operable to automatically reconcile files (***Howard discloses thus the file server must be involved in all file reconciliation; Column 2 line 16-17***) between computing devices at periodic intervals between at least two of said computing devices that are coupled to each other in the same network. ***(Howard discloses thus periodically the user files and directories at the two sites are reconciled with each other so that both sites have the latest copies of the files and directories; Column 4 line 43-46)***

Regarding claim 18, Howard teaches a distributed file system for distributing files between computing devices of at least one group of computing devices that are connected to each other in a network, the system including a transmission unit operable to issue file data to all computers ***(Howard discloses thus the file server must be involved in all file reconciliation; Column 2 line 16-17)*** within the group without specifying the computers in the group to which the issue file data are issued, and a receiving unit operable to receive file data from all computers within the group without specifying the computers in the group that are receiving the receiving the received file data. ***(Howard discloses in systems using these techniques, file updates are broadcast to all storage locations immediately, and in some cases the use of a file being updated is prevented until all copies have been updated; Column 2 line 1-5)***

Regarding claim 19, Howard teaches a computer network including a distributed file system according to claim 17, as described above. ***(Howard discloses such techniques are used in systems such as Network File System (NFS); Column 1 line 2-3)***

Regarding claim 20, Howard teaches a software application for distributing files stored on or in a memory device, which software application is operable to perform the method according to claim 1, as described above. ***(Howard discloses an improved method of reconciling different file storage sites in a distributed file system is***

disclosed. A set of journal or log files is used to track the history of file modification at each of the different sites. The journal files contain sequences of version entries associated with each file at the corresponding site. Each version entry contains a hash code or digest that to a very high probability uniquely identifies the contents of a corresponding version of the file; column 3 line 25-33)

Regarding claim 21, Howard teaches a method according to claim 1, as described above. Howard also teaches including the step of transmitting a journal of file history for each shared file from one computer into the network. ***(Howard discloses file reconciliation process in a distributed file system uses a set of journal or log files to track the history of file modification at each of different sites, or sets of directories, in a computer system; Abstract line 1-3).***

Regarding claim 22, Howard taught a method according to claim 1, as described above. Howard also teaches including the step of dividing files into a plurality of portions for data transfer. ***(Howard discloses it should be noted here that the assignment of mask bits to sites is meaningful only within a particular journal. When journals are merged as described above, the mask bits in both the Site and the Version entries are re-mapped appropriately to maintain the associations between versions and sites; Column 6 line 39-44)***

Regarding claim 23, Howard taught a method according to claim 1, as described above. Howard further teaches including the step of storing file versions in a format in which they can be read from and written to. ***(Howard discloses for example, the reconciliation process could be run as an independent process on each computer, and a signalling and file-exchange protocol used between the independent processes to carry out the reading and writing of directory, data and journal files. Column 13 line 5-9)***

Regarding claim 24, Howard teaches a software application for distributing files stored on or in a memory device, which software application is operable to perform the method according to claim 8, which was taught above. ***(Howard discloses an improved method of reconciling different file storage sites in a distributed file system is disclosed. A set of journal or log files is used to track the history of file modification at each of the different sites. The journal files contain sequences of version entries associated with each file at the corresponding site. Each version entry contains a hash code or digest that to a very high probability uniquely identifies the contents of a corresponding version of the file; column 3 line 25-33)***

Regarding claim 25, Howard teaches a computer network including a distributed file system according to claim 18, which Carter taught above. ***(Howard discloses an improved method of reconciling different file storage sites in a distributed file system is disclosed. A set of journal or log files is used to track the history of file***

modification at each of the different sites. The journal files contain sequences of version entries associated with each file at the corresponding site. Each version entry contains a hash code or digest that to a very high probability uniquely identifies the contents of a corresponding version of the file; column 3 line 25-33)

Regarding claim 26, Howard teaches a computer network including a distributed file system operable by a method of distributing files according to claim 1, which was taught by Howard previously described above. ***(Howard discloses file reconciliation process in a distributed file system uses a set of journal or log files to track the history of file modification at each of different sites, or sets of directories, in a computer system; Abstract line 1-3).***

Regarding claim 27, Howard teaches a computer network including a distributed file system operable by a method of distributing files according to claim 8, which was taught by Howard as described above. ***(Howard discloses file reconciliation process in a distributed file system uses a set of journal or log files to track the history of file modification at each of different sites, or sets of directories, in a computer system; Abstract line 1-3).***

Response to Argument

Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of new ground(s) or rejection.

Applicant added limitation for claims 1, 3-9, 11-12, 14-16, 17-18 are being anticipated by Howard . Applicants limitation of automatically performing a file reconciliation at periodic intervals, is being taught by Howard as disclosed above. Howard also discloses reconciliation of group computers as disclosed above.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gerald Smarth whose telephone number is (571)270-1923. The examiner can normally be reached on Monday-Friday(7:30am-5:00pm)est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu can be reached on (571)272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gerald Smarth

11/21/07

JEFFREY PWU
SUPERVISORY PATENT EXAMINER